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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/525,105    03/14/00    ABBOTT

D    TI-28098

EXAMINER

MM91/0920

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ART UNIT

PAPER NUMBER

2826

DATE MAILED:

09/20/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Application No.

09/525,105

Applicant(s)

ABBOTT ET AL.

Examiner

Alexander O Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 16-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-22 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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Serial Number: 09/525105      Attorney's Docket #: TI-28098  
Filing Date: 3/14/00; claimed foreign priority to 3/19/99

Applicant: Abbott et al.

Examiner: Alexander Williams

Applicant's Amendment in Paper # 5, filed 6/20/01, has been acknowledged.

This application contains claims 16 to 22 drawn to an invention non-elected without traverse in Paper No. 3. A complete response to the final rejection must include cancellation of non-elected claims or other appropriate action (see 37 CFR § 1.144 & MPEP § 821.01).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

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art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CAR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Okinaga et al. (U.S. Patent # 5,234,866).

For example, in claim 1, Okinaga et al. (**Figures 1 to 6**) specifically figures 3 and 5 show a leadframe for use with integrated circuit chips 1 comprising: a plated layer 2b,12 of gold selectively covering outer areas of said leadframe intended for solder attachment.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Akino et al. (Japan Patent Application # 2000-77593).

For example, in claim 1, Akino et al. (**figures 1 to 3**) show a leadframe 1 for use with integrated circuit chips 4 comprising: a plated layer 8 of gold selectively covering outer areas of said leadframe intended for solder attachment (**see solution**).

Initially, and with respect to claims 2, 11 and 13, note that a "product by process" claim is directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17

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(footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); In re Fitzgerald, 205 USPQ 594, 596 (CCPA); In re Marosi et al., 218 USPQ 289 (CAFC); and most recently, In re Thorpe et al., 227 USPQ 964 (CAFC, 1985) all of which make it clear that it is the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that, as here, an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that Applicant has burden of proof in such cases as the above case law makes clear.

Claims 2 to 9 and 11 to 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Abbott (U.S. Patent # 6,245,448) in view of Akino et al. (Japan Patent Application # 2000-77593).

In claim 2 and similar claim 11, Abbott (**Figures 1 to 3**) specifically figure 3 show a leadframe 34 for use with integrated circuit chips 12, having a chip mount pad 14 and a plurality of lead segments, comprising: a leadframe base 28 of copper or copper alloy; a first layer 36 of nickel deposited on said copper; a layer of alloy 38 of nickel and palladium on first nickel layer; a second nickel layer 40; a layer of palladium 42. Abbott fails to explicitly show a layer of gold.

Akino et al. is cited for showing a lead frame for semiconductor. Specifically, Akino et al. (**figures 1 to 3**) specifically figure 3 discloses a leadframe 1 base made of copper 5; a first layer of nickel 6 deposited on said copper; a palladium 7 on first nickel layer; a second nickel layer 9; a layer of palladium 7; and a layer of gold 8 for the purpose of improving the structure of plating layers solderability after heating.

In claim 3 to 8, Note that the specification contains no disclosure of either the critical nature of the claimed dimensions or any unexpected results arising therefrom. Where

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patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, the Applicant must show that the chosen dimensions are critical. In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

As to claims 9 to 15, using the combination of Abbott and Akino et al., it would be obvious to one of ordinary skill in the art to use claimed detailed on the structure of the leadframe in the device.

Therefore, it would have been obvious to one of ordinary skill in the art to use Tsuji et al.'s leadframe pad and device to modify Kom et al.'s leadframe for the purpose of improving the structure of plating layers layers solderability after heating.

As to the grounds of rejection under section 103, see MPEP § 2113.

## Response

Applicant's arguments filed 6/20/01 have been fully considered, but are moot in view of the new grounds of rejections detailed above.

The listed references are cited as of interest to this application, but not applied at this time.

Field of Search	Date
U.S. Class and subclass: 257/666,675-678,690,692,693,696,698, 712,713,762,741,766-768,772,779,784,788	3/23/01
Other Documentation: foreign patents and literature in 257/666,675-678,690,692,693,696,698, 712,713,762,741,766-768,772,779,784,788	3/23/01
Electronic data base(s): U.S. Patents EAST	3/23/01

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*Papers related to this application may be submitted to Technology Center 2800 by facsimile transmission. Papers should be faxed to Technology Center 2800 via the Technology Center 2800 Fax center located in Crystal Plaza 4-5B15. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center 2800 Fax Center number is (703) 308-7722 or 24. Only Papers related to Technology Center 2800 APPLICATIONS SHOULD BE FAXED to the GROUP 2800 FAX CENTER.*

Any inquiry concerning this communication or any earlier communication from the examiner should be directed to **Examiner Alexander Williams** whose telephone number is (703) 308-4863.

Any inquiry of a general nature or relating to the status of this application should be directed to the **Technology Center 2800 receptionist** whose telephone number is (703) 308-0956.

9/18/01



Primary Patent Examiner  
Alexander O. Williams